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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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10/699,147

10/31/2003

Naoto Kawamura

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12/29/2005

HEWLETT-PACKARD COMPANY

Intellectual Property Administration

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EXAMINER

NGUYEN, LAMSON D

ART UNIT

PAPER NUMBER

2861

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/699,147 | KAWAMURA ET AL. | |
| | Examiner | Art Unit | |
| | Lamson D. Nguyen | 2861 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on restriction election dated 10/11/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) 15-20 and 25-29 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21 and 24 is/are allowed.
- 6) ☒ Claim(s) 1-8, 10, 11, 22 and 23 is/are rejected.
- 7) ☒ Claim(s) 9 and 12-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/24/05, 10/31/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5, and 22-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In claims 1, 22-23, it is not clear what “wherein a portion of the contact bumps of each contact array are capable of obtaining identity information from the liquid ejecting device and **are located** in a same location in each contact array, and wherein another portion of the contact bumps of each contact array are capable of sending signals to operate the fluid ejecting device and **are located** in different locations in each contact array” means. The “are located” in bold is not clearly defined. The examiner does not understand what are being located. As written, the claim is wordy and is not clearly defined.
- In claim 5, it is not clear how the number of bumps capable of obtaining identity information can be the same if there is only one ID contact 206 in figure 5A.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-8, and 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Browning et al. (6,837,573).

The applied reference has a common assignee with the instant application.

Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Browning et al teach a fluid ejection system comprising:

Claim 1:

A fluid ejection system comprising: a chute structured to receive a fluid ejecting device (figure 13, chutes 131); a contact array comprising a plurality of contact bumps disposed in the chute (figure 13, contact bumps 139 in arrays), the contact array being one of at least two contact arrays each having a different pattern of contact bump locations (figure 13 different patterns of contact bumps 139), wherein a portion of the contact bumps of each contact array are capable of obtaining identity information from the fluid ejecting device and are located in a same location in each contact array, and wherein another portion of contact bumps of each contact array are capable of sending

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signals to operate the fluid ejecting device and are located in different locations in each contact array (figure 5 teaches contact arrays 73, where there is an ID contact ID and contacts A1-A13 that send signals to drive the printhead)

Claim 2:

The fluid ejection system of claim 1, wherein one of the contact arrays includes a first pair of columnar arrays of contact bumps and a second pair of columnar arrays of contact bumps disposed on a wall of the chute, the columnar arrays of each pair converging toward each other in a direction toward a lower portion of the chute (figure 13, contact bumps in column converging toward the bottom).

Claim 3:

The fluid ejection system of claim 1, wherein the array of contact bumps includes at least one columnar array of contact bumps that is substantially linear (figure 5, contact array at leftmost)

Claim 4:

The fluid ejection system of claim 1, wherein one contact array has a width of less than about 12 mm (column 4, line2 47-48)

Claim 6:

A printing apparatus comprising: a cartridge comprising either one of: a) a first cartridge

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having a first contact array including a plurality of contact areas (figure 13); or b) a second cartridge having a second contact array including a plurality of contact areas (figure 13), wherein locations of the contact areas of the first contact array are different from locations of the contact areas of the second contact array (figure 13 teaches contact pad areas are different for two different cartridges); a carriage that interchangeably receives the first cartridge and the second cartridge; and a controller that identifies whether the first cartridge or the second cartridge is installed in the carriage (figure 12 teaches carriage datums CY1, CZ1, CX1, CY2, CZ2, and CY3 are used to identify which cartridge is being installed)

Claim 7:

The printing apparatus of claim 6, wherein a portion of the contact areas of the first contact array and a portion of the contact areas of the second contact array are similarly located on the first cartridge and second cartridge, respectively (figure 13)

Claim 8:

The printing apparatus of claim 7, wherein the similarly located contact areas of the first and second cartridges comprise contact areas used by the controller to identify whether the first cartridge or the second cartridge is installed in the carriage (column 7, lines 55-65)

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Claim 10:

The printing apparatus of claim 6, wherein the first cartridge and the second cartridge each comprise a cartridge body having a lower portion and a vertical wall, a printhead attached to the lower portion; and wherein one of the first and second contact arrays includes a first pair of columnar arrays of contact areas and a second pair of columnar arrays of contact areas disposed on the vertical wall, the columnar arrays of each pair converging toward each other in a direction toward the lower portion. (figure 13)

Claim 11:

The printing apparatus of claim 6, wherein the first contact array includes at least one columnar array of contact areas that is substantially nonlinear, and wherein the second contact array includes at least one columnar array of contact areas that is substantially linear (figure 5a)

Allowable Subject Matter

3. Claims 21 and 24 are allowed.
4. Claims 12-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 9 and 22-23 are would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

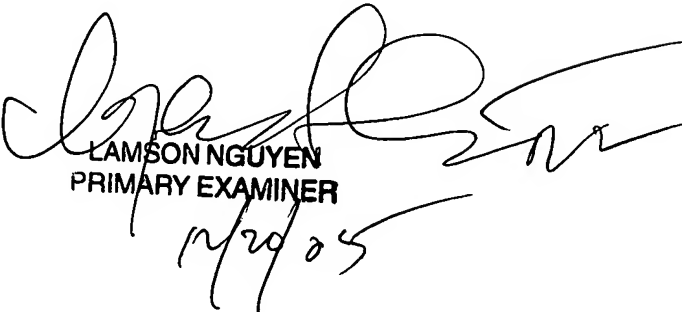
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6. Claim 1 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lamson D. Nguyen whose telephone number is 571-272-2259. The examiner can normally be reached on 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Talbott can be reached on 571-272-1934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LAMSON NGUYEN
PRIMARY EXAMINER
12/29/05